

**METHODS AND SYSTEMS FOR MANAGING PERSISTENT STORAGE OF  
SMALL DATA OBJECTS**

**Abstract of the Disclosure**

5           Techniques for managing storage of objects of sizes smaller than a storage  
transfer unit in a computer system. A plurality of storage transfer units are maintained in  
a first storage medium (e.g., disk storage) organized by a quantity of free space in a  
storage transfer unit. A cache is maintained in a second storage medium (e.g., main  
memory), the cache including a copy of at least one of the plurality of storage transfer  
units. In response to a request to store an object of a size less than a storage transfer unit,  
10   the technique searches for a cached storage transfer unit with sufficient free space to store  
the object. If no such cached storage transfer unit can be found, the technique identifies  
an uncached storage transfer unit with sufficient free space to store the object and stores a  
copy of the identified storage transfer unit in the cache. The object is stored in the  
identified storage transfer unit by modifying at least one data structure in the cache and  
15   subsequently writing a cached copy of the storage transfer unit to the first storage  
medium.